Listing of Claims:

1. (Currently amended) A data transmission method of a radio link system between a central station and at least one substation, comprising the steps of:

transmitting a time division multiplex signal at a first frequency from the central station; and

receiving at the central station signals of said at least one substation at a second frequency, said second frequency being a different frequency than said first frequency and said signals of said at least one substation at said second frequency forming a time division multiple access signal;

wherein each of said at least one substation receives, within an initial time period having time slots, at said first frequency during certain first time periods having one or more time slots and corresponding to a specific substation; ~~and~~

wherein said specific substation transmits, within said initial time period, at said second frequency during certain second time periods having one or more time slots corresponding to said specific substation such that said first time periods are different time periods than said second time periods; and

wherein said initial time period comprises timeslots in which the specific substation only receives at said first frequency from said central station and only transmits at said second frequency to said central station.

2. (Previously presented) The data transmission method of claim 1, wherein the central station controls the time periods used for transmission and reception by the substations.

3. (Currently amended) A radio link system, comprising:

a central station comprising means for discriminating reception signals from transmission signals on a basis of frequency; and

at least one substation;

wherein the central station is configured so as to transmit a time division multiplex signal at a first frequency and receive a time division multiple access signal at a second frequency; ~~and~~

wherein the at least one substation is configured so as to receive, within an initial time period constituted of time slots, at said first frequency during certain first time periods having one or more time slots and corresponding to a specific substation and said specific substation is arranged to transmit, within said initial time period, at said second frequency during certain second time periods having one or more time slots and corresponding to said specific substation such that said first and second time periods are different time periods and signals transmitted by said at least one substation at said second frequency are arranged to form said time division multiple access signal; and

wherein said initial time period comprises timeslots in which the specific substation only receives at said first frequency from said central station and only transmits at said second frequency to said central station.

4. (Previously presented) The radio link system of claim 3, wherein the central station is configured to select said first and second time periods.

5. (Previously presented) The radio link system of claim 3, wherein the system is located in a GSM mobile communication system.

6. (Previously presented) The radio link system of claim 3, wherein the system is located in a UMTS mobile communication system.

7. (Previously presented) The radio link system of claim 3, wherein the system is located in a broadband data transmission system.

8. (Previously presented) The radio link system of claim 7, wherein the system is located in a LMDS system.

9. (Previously presented) The radio link system of claim 7, wherein the system is located in a HiperAccess system.

10. (New) The method of claim 1, wherein uplink and downlink time slots are allocated according to traffic needs.

11. (New) The radio link system of claim 3, wherein uplink and downlink time slots are allocated according to traffic needs.